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Sequence Listing could not be accepted due to errors.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2008; month=8; day=19; hr=14; min=59; sec=1; ms=781;]

=====

Reviewer Comments:

<130> CORE0037USA

<150> PCT/US2005/008428

<151> 2005-03-15

Please insert the following above the <150> line:

<140> 10/592,919

<141> 2007-07-31

<210> 9

<220>

<400> 9

000

Please remove the above <220>, which does not belong in an intentionally skipped sequence.

<210> 14

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide

<220>

<221> misc_feature
<222> 1-19
<223> Bases at these positions are RNA

<400> 14
cggccccgtc cgcctctcgt t

21

The above <223> response describing RNA bases is incorrect: t's are at locations between 1 and 19: t's are not RNA bases.

<210> 15
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<220>
<221> misc_feature
<222> 4
<223> N = tetrafluoroindole

<400> 15
ctgntagcct ctggatttga

20

FYI: "n" can only represent a single nucleotide, nothing else. The above explanation of "n" also appears in subsequent sequences.

Application No: 10592919

Version No: 1.0

Input Set:

Output Set:

Started: 2008-08-19 13:54:49.596

Finished: 2008-08-19 13:54:51.806

Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 210 ms

Total Warnings: 46

Total Errors: 2

No. of SeqIDs Defined: 48

Actual SeqID Count: 48

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
E 249	Order Sequence Error <210> -> <220>; Expected Mandatory Tag: <211> in SEQID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
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W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)

Input Set:

Output Set:

Started: 2008-08-19 13:54:49.596
Finished: 2008-08-19 13:54:51.806
Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 210 ms
Total Warnings: 46
Total Errors: 2
No. of SeqIDs Defined: 48
Actual SeqID Count: 48

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (21)
W 213	Artificial or Unknown found in <213> in SEQ ID (22) This error has occurred more than 20 times, will not be displayed
E 250	Structural Validation Error; Sequence listing may not be indexable

SEQUENCE LISTING

<110> Michael, T. Migawa

Walter F. Lima

Eric E. Swayze

Joshua Nichols

Hongjiang Wu

Thazha P. Prakash

Tadeusz Krzysztof Wyrzykiewicz

Balkrishen Bhat

Stanley T. Crooke

<120> COMPOSITIONS AND METHODS FOR OPTIMIZING

CLEAVAGE OF RNA BY RNASE H

<130> CORE0037USA

<150> PCT/US2005/008428

<151> 2005-03-15

<150> 60/609,516

<151> 2004-09-13

<150> 60/567,016

<151> 2004-04-29

<150> 60/553,646

<151> 2004-03-15

<160> 48

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 20

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<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide

<400> 1

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<210> 2

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide

<400> 2

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<210> 3
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<213> Artificial Sequence

<220>
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<400> 3
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<213> Mus musculus

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<210> 5

<211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <400> 5
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 <210> 6
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <400> 6
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 <210> 7
 <211> 28
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <400> 7
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 <210> 8
 <211> 20
 <212> DNA
 <213> Artificial Sequence

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 <400> 8
 ccttcctga aggttctcc 20

 <210> 9

 <220>

 <400> 9
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 <210> 10
 <211> 12
 <212> RNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

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<210> 11	
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<212> RNA	
<213> Artificial Sequence	
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<223> Synthetic oligonucleotide	
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<211> 19	
<212> RNA	
<213> Artificial Sequence	
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<223> Synthetic oligonucleotide	
<400> 12	
cgagaggcgg acgggaccg	19
<210> 13	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
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<220>	
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<222> 1-19	
<223> Bases at these positions are RNA	
<400> 13	
cgagaggcgg acgggaccgt t	21
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<213> Artificial Sequence	
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<220>	
<221> misc_feature	
<222> 1-19	
<223> Bases at these positions are RNA	
<400> 14	
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<210> 15
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 <212> DNA
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 <220>
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 <220>
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 <222> 4
 <223> N = tetrafluoroindole

 <400> 15
 ctgntagcct ctggatttga 20

 <210> 16
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 <220>
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 <222> 5
 <223> N = tetrafluoroindole

 <400> 16
 ctgcnagcct ctggatttga 20

 <210> 17
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
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 <220>
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 <222> 6
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 <400> 17
 ctgctngcct ctggatttga 20

 <210> 18
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
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<220>
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 <222> 7
 <223> N = tetrafluoroindole

 <400> 18
 ctgctancct ctggatttga 20

 <210> 19
 <211> 20
 <212> DNA
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 <220>
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 <222> 8
 <223> N = tetrafluoroindole

 <400> 19
 ctgctagnct ctggatttga 20

 <210> 20
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 <400> 20
 ctgctagccn ctggatttga 20

 <210> 21
 <211> 20
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 <220>
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 <220>
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 <222> 5
 <223> N = N-3-methyl-2'MOE-thymidine

 <400> 21
 ctgcnagcct ctggatttga 20

 <210> 22

<211> 20
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 <220>
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 <220>
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 <222> 17
 <223> N = tetrafluoroindole

 <400> 22
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 <210> 23
 <211> 20
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 <220>
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 <220>
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 <223> N = tetrafluoroindole

 <400> 23
 ctgctagcct ctgganttga 20

 <210> 24
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 <213> Artificial Sequence

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 <222> 15
 <223> N = tetrafluoroindole

 <400> 24
 ctgctagcct ctggntttga 20

 <210> 25
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> misc_feature

<222> 14
 <223> N = tetrafluoroindole

<400> 25
 ctgctagcct ctgnatttga 20

<210> 26
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 <212> DNA
 <213> Artificial Sequence

<220>
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<220>
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 <222> 13
 <223> N = tetrafluoroindole

<400> 26
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<210> 27
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 <212> DNA
 <213> Artificial Sequence

<220>
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<220>
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 <222> 5, 15
 <223> N = tetrafluoroindole

<400> 27
 ctgcnagcct ctggntttga 20

<210> 28
 <211> 20
 <212> DNA
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<220>
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<220>
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 <222> 16
 <223> N = N-3-methyl-2'MOE-thymidine

<400> 28
 ctgctagcct ctgganttga 20

<210> 29
 <211> 20
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide

<220>

<221> misc_feature

<222> 7

<223> N = 2'-ara-fluorothymidine or pseudouridine or
2'-fluorothymidine or 2-thiouridine or
2'-S-methylthymidine or 4'-methylthymidine or
3'-methylthymidine

<400> 29

ctacgcnttc cacgcacagt 20

<210> 30

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide

<220>

<221> misc_feature

<222> 8

<223> 2'-ara-fluorothymidine or pseudouridine or
2'-fluorothymidine or 2-thiouridine or
2'-S-methylthymidine or 4'-methylthymidine or
3'-methylthymidine

<400> 30

ctacgctntc cacgcacagt 20

<210> 31

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide

<220>

<221> misc_feature

<222> 9

<223> 2'-ara-fluorothymidine or pseudouridine or
2'-fluorothymidine or 2-thiouridine or
2'-S-methylthymidine or 4'-methylthymidine or
3'-methylthymidine or abasic nucleotide or 2,4-F-tolyl

<400> 31

ctacgcttnc cacgcacagt 20

<210> 32

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide

<220>

<221> misc_feature

<222> 10

<223> 2'-ara-fluorocytidine or abasic nucleotide or
2,4-F-tolyl

<400> 32

ctacgctttt caccacagt

20

<210> 33

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide

<220>

<221> misc_feature

<222> 11

<223> abasic nucleotide or 2,4-F-tolyl

<400> 33

ctacgctttt caccacagt

20

<210> 34

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide

<220>

<221> misc_feature

<222> 12

<223> adenine with propyl linker or adenine with butyl
linker or adenine with pentyl linker or
tetrahydrofuran or 4-Me-ben

<400> 34

ctacgctttt cncgcacagt

20

<210> 35

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide

<220>

<221> misc_feature
 <222> 13
 <223> 2'-ara-fluorocytidine

 <400> 35
 ctacgctttc cangcacagt 20

 <210> 36
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> misc_feature
 <222> 14
 <223> guanine with propyl linker or tetrahydrofuran or
 gancyclovir

 <400> 36
 ctacgctttc cacncacagt 20

 <210> 37
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> misc_feature
 <222> 15
 <223> 2'-ara-fluorocytidine or cytidine with propyl
 linker or cytidine with butyl linker or cytidine
 with pentyl linker

 <400> 37
 ctacgctttc cacgnacagt 20

 <210> 38
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> misc_feature
 <222> 4
 <223> N= Tetraflouroindole

 <400> 38
 agtntaggtc tccgacgctc 20

<210> 39
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> misc_feature
 <222> 5
 <223> N= Tetraflouroindole or N= 2,3,4,5-tetraflourophenyl

 <400> 39
 agttnaggtc tccgacgctc 20

 <210> 40
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> misc_feature
 <222> 6
 <223> N= Tetraflouroindole or N= 2,3,4,5-tetraflourophenyl

 <400> 40
 agtttnggct tccgacgctc 20

 <210> 41
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
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 <220>
 <221> misc_feature
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 <223> N= Tetraflouroindole

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 <210> 42
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<223> Synthetic oligonucleotide

<220>

<221> misc_feature

<222> 8

<223> N= Tetraflouroindole

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<223> Synthetic oligonucleotide

<220>

<221> misc_feature

<222> 13

<223> N= Tetraflouroindole

<400> 43

agtttaggtc tcngacgctc

20

<210> 44

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide

<220>

<221> misc_feature

<222> 14

<223> N= Tetraflouroindole

<400> 44

agtttaggtc tccnacgctc

20

<210> 45

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide

<220>

<221> misc_feature

<222> 15

<223> N= Tetraflouroindole

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20

<210> 46
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<400> 46
agtttaggtc tccgancgtc 20

<210> 47
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<223> N= Tetraflouroindole

<400> 47
agtttaggtc tccgatngtc 20

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